

We claim:

1. A method use by a first wireless device in a wireless communications environment to evaluate the distance between the first wireless device and a second wireless device, and the first wireless device and a third wireless device, the method comprising the steps of:

calculating a corrected distance from the first wireless device to the third wireless device based on a first distance to the second wireless device averaged over a first sample size, a second distance to the third wireless device averaged over a second sample size, and a first error value related to the first sample size and a second error value related to the second sample size;

wherein the corrected distance is the first distance if the first distance minus the second distance is less than or equal to the total of the first error value plus the second error value;

wherein the corrected distance is the second distance if the first distance minus the second distance is greater than the total of the first error value plus the second error value;

using the corrected distance to ascertain a data rate;

using the data rate to ascertain a load factor;

calculating a biased distance to the third device equal to $(\text{corrected distance} * (\text{load factor} + (\text{a known load factor related to the second device})) / \text{load factor}$;

calculating a biased distance to the second device equal to the (first distance * (the known load factor related to the second device) / (the known load factor related to the second device) + load factor);

calculating a biased distance delta equal to the biased distance delta to the second device minus the biased distance delta to the third device;

requesting association with the third device if the biased distance delta is positive.

2. The method of claim 1 wherein the step of using the corrected distance to ascertain a data rate does so based on the corrected distance and the wireless technology used in the wireless communications environment.

3. The method of claim 2 wherein the load factor is ascertained based on the data rate and the wireless technology used in the wireless communications environment.